Health IT Research Catalog - As of January 2015

Project	Start Date	End Date	Project Description
Critical Medical Command & Control Requirements for Medical Situation Awareness in Theater	9/28/2010	9/27/2011	Facilitate data and information sharing between DOD and other than DOD agencies / organizations including Coalition / Partner nations. Emerging requirements include gaps identified in providing enroute care utilizing coalition and partner nation support in first responder and definitive care, non-standard electronic information systems and a potential loss of medical treatment information from the chronological electronic health record.
Critical Medical Logistics Requirements for Theater (JMLRT)	5/7/2010	10/8/2011	Improve and expand JMLRT initial capabilites for theater
Theater Barcode/RFID	9/1/2011	8/31/2012	Research is needed to identify and prototype the most suitable COTS product(s) for Barcoding and RFID Identity Management for use in the MHS. Device agnostic approach sutiable for integration in the new SOA/ESB architecture.
Software Development Kit (SDK) for Theater Re-named D-CAST	9/15/2011	9/14/2012	MHS needs a SDK to use community collaboration to develop rich web 2.0 applications against the AHLTA T and TC2 without needing the details and internal workings of the system. The SDK is needed to provide developers a starting point for the development effort. Using a tested, certified SDK will in also reduce testing and IA effort needed to deploy the selected Apps.
Theater Warfighter Blood Application Re-named TBLD ion Re-named TBLD	9/18/2011	9/29/2012	This study focuses on research methods for stabilizing the current eMOAS application which was converted from an excel spreadsheet/e-mail based system to an electronic web-based capability within the Theater Medical Data Store (TMDS). This effort focuses on implementing theater user Software Change Requests (SCR) based on operational experience gained from eMOAS and creating a prototpye Theater Warfighter Blood Application Re-named TBLD ion as a separate web application/portlet. The Theater Warfighter Blood Application Re-named TBLD ion will support blood processing and management from the Blood Transshipment Centers to Theater Medical Treatment Facilities to provide enterprise tracking, reporting, and visibility of blood products from donor to transfusion into a patient or destruction. This includes the ability to process the receipt, shipment, and disposition of blood products using bar code scanning, providing near real- time enterprise-wide visibility of all blood products. The historical record of all blood and blood product processing, transfusion and disposition is maintained in the Theater Medical Data Store. Blood products transfused into patients become part of the patients chronological electronic health record with a total lifecycle audit trail from donor/origin to patient. The Theater Warfighter Blood Application Re-named TBLD ion will employ standards-based messaging and web interfaces in a modular, loosely coupled design consistent with migration into the EHRWA architecture.
Pacific Operations Center Proof of Concept	7/1/2011	6/30/2013	The result of this research effort is a proof of concept for the Pacific and European Regional Data Processing center to support the Regional Distribution of networked data processing centers.
United Theater Server Platform (UTSP)	5/1/2012	7/31/2013	The focus of this research is to (a) Conduct a study to identify options and recommend: a preferred environment, operating system, code base, initial capability hardware platform, server platform, rugged server (b) Conduct a study to identify a software environment and software for Initial Capability Release to include intelligent secure mobility, intelligent acceleration, system transport methodology and build-out central datacenter sites (c) Provide a concept demonstration to validate the recommendations provided by building an optimized hardware platform packaged into rugged chassis with all the networking components and all the software required to test the sample kit in conditions that replicate the remote and harsh environments (d) Recommend an timeline and initial capability release list

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Care En-route / Mobile Computing	9/1/2011	8/31/2013	Research and develop a sound mobile computing strategy for MHS and develop mobile apps as follows: a. Standardized application for use across the Services and Coalition partners to record information related to en route care provided from point of injury to a higher echelon treatment facility b. Medical evacuation request and tracking application to be used across all NATO partners c. Mobile Trauma Care Application for use in fixed facilities
Electronic Surveillance System for Early Notification of Community-based Epidemics (ESSENCE)	9/18/2012	9/17/2013	The overall intent is to shorten the time to market in delivering new salient enhancements to DoD ESSENCE. By executing the requirements discovery/ definition, and system design using the JITC Integrated Test & Evaluation Center (ITEC) lab capability, this will shorten delivery of these capabilities to the field by an estimated 9 months.
National & International Integrated Catastrophic Health Event Preparedness and Response System (NIICHE-PRS)	9/1/2012	8/31/2014	MHS requires a web-enabled information strategy that will provide up-to-date medical asset and event response preparedness to support homeland defense and civil support in the provision of Military Health System Stability Operations. This research supports (a) creation of decision support tool(s) that effectively estimate the total public health and medical capabilities required to effectively respond to national or international catastrophic health event and (b) Estimation of total available resources (private and governmental), and allocates these resources in an optimum manner to achieve the best possible outcome in terms of reduced morbidity and mortality.
Initiative for Enterprise Data Migration / Interoperability (iDA)	9/13/2012	9/12/2014	Provide risk reduction support to the IPO; inform government executive leadership on movement to a new enterprise SOA/ESB architecture
MHS Natural Medicine & Supplement Adverse Reaction Registry	9/13/2012	9/12/2014	Provision of world class reporting and analysis consultation, education, training, research, and maintenance/modernization of dietary supplements in suport of the mission of the DOD and other federal agencies, to improve warfighter readiness and sustainment of healthy lifestyles. Objectives of the project are: • Identify data entities from the available data sources for inclusion in the registry, and from this effort, a data model. • Create the data model that reflects how the data will be used to support the analysis, reporting and surveillance functionality. • Develop both the data acquisition and the browser functional requirements. The data acquisition analysis and design effort includes access strategies, source specific adapters and the extract, transform and load (ETL) process. The end user client browser analysis and design effort is a process considering the data model and the data source effort, and results in an established a baseline comprising an initial release and schedule of iterations.
Military Health System (MHS) Transition Application Support (TAPS)	9/24/2012	9/23/2014	Determine a safe, logical, step-wise approach to moving key clinical and business transactions and workflows off the legacy systems and move them to a SOA-based design. The approved research study for this determination will,Identify key legacy transactional files: Patient File, Provider File, Order Entry File, etc. Identify target replacement data files and their interface requirements: EMPI, DMHRSi, Pharmacy COTS, etc. Provide a systematic analysis of legacy clinical workflows to determine additional data. element requirements that expand and re-use stands-based, HL7 compliant APIs and services prototyped for the initial study. Key components of the technical approach. ESB/SOA Exposure Plan. Expose and extract the legacy system business rules and data using APIs and the Enterprise Service Bus. Promote the resulting application as a service. Consume the service thorough a prototype demonstration showing the ability to replicate this process with other legacy clinical module. Prototype real-world demonstration consistent with modernization of the MHS architecture objectives

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DMLES Common User Interface and Common Services	9/28/2012	9/27/2014	Obtain proposals to research and prototype a Single Common User Interface and Common Services for the Defense Medical Logistics Enterprise Systems. The research will be used to inform and support risk reduction activities for the establishment of an innovative approach to prototype a seamless conduit for customers to conduct Medial Supply Chain business operations. Research and prototyping of a common user interface and common services lays the foundation for the DML-ES applications to be re-engineered and transformed from standalone systems into interoperable enterprise-wide capabilities supporting Healthcare customer-centric decisions.
Initiative for iEHR Business Process Optimization (iBO)	9/28/2012	9/27/2014	Research, identify, analyze and study feasible transition/migration strategies and optimize (reuse) legacy data and related processes critical to inform and support risk reduction activities for transitioning the Department of Defense (DoD) and Veterans Affairs (VA) to a new joint architecture. This project is not limited to the Composite Health Care System (CHCS). It will cover any and all Military Health System (MHS) systems that may or may not need evaluation for migration (on the direction of government.
Identity Management for the NwHIN eHealth Exchange (eHE)	5/3/2013	11/2/2014	Research is needed by the MHS and DoD (Defense Manpower Data Center) to perform risk reduction analysis and testing that will better inform the government of the best way to approach integration (protocols and services) of disparate identity management systems both within the federal architecture and between commercial partners in the NwHIN. It is difficult to track a number of identities within the disparate identity management systems owned and operated by the DOD, VA, and commercial partners, due to data entry errors / missing information, and duplicates. In addition, under NwHIN, DoD, VA and commercial health care providers need to properly match and track consent to sharing (whether implied or expressed consent). Research is needed by the MHS and DoD (Defense Manpower Data Center) to perform risk reduction analysis and testing that will better inform the government of the best way to approach integration (protocols and services) of disparate identity management systems both within the federal architecture and between commercial partners in the NwHIN.
MHS Knowledge Portal	12/2/2013	12/1/2014	Research, identify, analyze, and study feasible transition/ migration/ consolidation strategies to optimize use of eLearning systems and tools critical to maintain regulatory, readiness, and competency training and continuing education requirements for Military Health System staff, beneficiaries, and civilian and interagency partners.
Theater Mobile Blood Management	4/23/2013	4/22/2015	Implementation of a mobile, agile, theater-operational capability to manage and track blood components within the theater to ensure total lifecycle tracking of blood products from point origin/donor to the transfused patient.
Regionalization for DMLES	8/5/2013	8/4/2015	Inform and support transition and risk reduction activities for migration from a distributed operating environment of approximately 220 servers to a regionalized operating environment in support of a Defense Medical Logistics Enterprise capability. The focus of the research should culminate in a proof-of-concept architecture solution to support the Defense Medical Logistics Standard Support (DMLSS). This regionalization effort is expected to increase enterprise agility and improve cost effective operations and sustainment.
Theater Medical Information Program (TMIP) Research Study to Assess Significant Gaps	9/10/2013	9/9/2015	Theater Medical Information Program (TMIP) research study to identify significant maritime capability gaps and identify more rapid implementation strategies for Naval platforms that would decrease the current implementation time of three to five years. The results of this research study will inform the post deployment review (PDR) being led by Force Health Protection and Readiness and will also be reflected as the Navy's input in the Joint operational medicine strategy, a product of the PDR.

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Optimal Vision Care Protoype	9/30/2013	9/29/2015	The prototype developed as a result of this research will be interoperable with the DOD and VA electronic medical records. The project requires research, documentation, and publication of standardized and re-useable business processes for any optimal specialty care documentation tool and will ultimately improve vision care outcomes.
Medical Informatics Fusion - Decision Support (MIF-DS)	9/21/2014	4/20/2016	Research and Develop a working Medical Informatics Fusion Decisions Support protoype solution htata fuses infoormation from disparate sources. Aggregaates daata from multiple, disparate sources, supports force readiness planning using real time Data Visualization and User Driven Analysis, provides leadership with mobile device access to real time information for critical readiness decision making.

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